

Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapters 1 and 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: The engines and emission control systems produced by the manufacturer as described below are certified for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

Model Year	Engine Family	Combustion Cycle	Fuel Operation	Fuel Type(s)	Engine Operation
2024	RCEXL23.0AAD	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (EDI), Electronic Control Module (ECM), Turbocharger (TC), Charged Air Cooler (CAC), Selective Catalytic Reduction – Urea (SCR-U), Ammonia Oxidation Catalyst (AMOX)	None

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) and Not-To-Exceed (NTE) limits, as applicable, for criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and for smoke opacity as demonstrated during the Acceleration (ACL) and Lugging (LUG) modes, and the peak value (PEAK) in either mode of the Smoke Opacity cycle, as set forth in 13 CCR 2423 and the applicable California test procedures for off-road compression-ignition engines, and 2) family emission limits (FEL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per kilowatt-hour (g/kWh-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (*).

Applicable Standard		Criteria				Smoke Opacity		
		NMHC	NOx	CO	PM	ACL	LUG	PEAK
Tier 4 Final ELSE > 560 kW	STD	0.19	3.5	3.5	0.04	*	*	*
	FEL	*	*	*	*	*	*	*
	NTE	0.28	4.4	4.4	0.06	*	*	*

BE IT FURTHER RESOLVED: Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

BE IT FURTHER RESOLVED: For the listed engine models, the manufacturer has submitted materials to demonstrate certification compliance with 13 CCR 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models may only be installed in or on equipment such that engine operation is consistent with off-road compression-ignition engines as defined in 13 CCR 2421(a)(39).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed on this 27th day of June 2023.



Robin U. Lang, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-002-0863

Family: RCEXL23.0AAD

Date Applicable: 6/14/2023

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD Status	OBD Fines (\$)	GHG	ECS #	Notes
QSK23	OK1		I6	23	Liters	1000	horsepower	1800	542	mm3/stroke	3005	lb-ft	1600	546	mm3/stroke	N/A	N/A	N/A	[1]	
QSK23	OK2		I6	23	Liters	950	horsepower	1800	533	mm3/stroke	2785	lb-ft	1400	509	mm3/stroke	N/A	N/A	N/A	[1]	
QSK23	OK3		I6	23	Liters	860	horsepower	1800	477	mm3/stroke	2785	lb-ft	1400	509	mm3/stroke	N/A	N/A	N/A	[1]	
QSK23	OK4		I6	23	Liters	760	horsepower	1800	422	mm3/stroke	2558	lb-ft	1350	469	mm3/stroke	N/A	N/A	N/A	[1]	
QSK23	OK8		I6	23	Liters	760	horsepower	2100	378	mm3/stroke	2558	lb-ft	1350	463	mm3/stroke	N/A	N/A	N/A	[1]	
QSK23	OK5		I6	23	Liters	1050	horsepower	2100	518	mm3/stroke	2897	lb-ft	1400	518	mm3/stroke	N/A	N/A	N/A	[1]	
QSK23	OK6		I6	23	Liters	950	horsepower	2100	467	mm3/stroke	2897	lb-ft	1400	525	mm3/stroke	N/A	N/A	N/A	[1]	
QSK23	OK7		I6	23	Liters	860	horsepower	2100	420	mm3/stroke	2785	lb-ft	1400	498	mm3/stroke	N/A	N/A	N/A	[1]	